NPIC/TDS/D-741-67
10 March 1967

MEMORANDUM FOR: Chief, Development Staff, TDS

THROUGH : Chief, Exploitation Systems Branch, DS

SUBJECT : Contract Negotiation with [redacted] 25X1

1. On 1 and 2 March 1967, [redacted] and the undersigned, as NPIC's technical representatives, met at [redacted] with the Agency's West Coast Contracting Officers, [redacted] to negotiate for the development of an advanced Rear Projection Viewer. 25X1 25X1 25X1

2. NPIC has obtained approval to expend up to [redacted] which was the latest financial information available at the time the request for approval was initiated. Specifically, [redacted] had amended their proposal and revised their cost in a letter to the contracting officer dated 23 September 1966. 25X1 25X1

3. After final approval to commit funds for this project had been obtained, [redacted] bid had expired and the contracting officer requested a revised cost. The bid [redacted] supplied was that exhibited in Attachment 1. Armed with the auditor's report, the contracting officer felt that certain reductions in the bid could be made to bring it within the approved allocation. 25X1 25X1

4. After two days of detailed analysis the contracting officer was unable to significantly reduce the bid. As Attachment 1 shows, [redacted] has divided the costs into two categories; nonrecurring and recurring. The nonrecurring or the development cost consist of (1) the design time required to take a previous design (the NOD 100 Viewer developed by [redacted] for SAC) and configure it to meet the NPIC specifications, (2) the allocated share of the common design between the NOD 100 and the NOD 110 (NPIC's viewer designator), and (3) the tooling required for the amortization base. The total of these three costs is then amortized over the first ten units -- the number that [redacted] has estimated that they will sell. Therefore, the allocation or allowable expense for the first unit is only a tenth of this total. The contracting officer maintains that this type of costing is allowed, however, he continually reminded the contractor that they were assuming the entire risk of making the estimate of the probability of any production units. 25X1 25X1 25X1

Declass Review by NGA.

SUBJECT: Contract Negotiation with [redacted] 25X1

5. The share of the common costs between the NOD 100 and the NOD 110 was determined in the following manner: [redacted] has segregated all the 25X1
costs that were common to the two designs and arrived at a total cost. They have estimated that eight NOD 100 units and ten NOD 110 will be produced. Therefore, the total common cost (that cost incurred for design which is common) will be amortized over eighteen units and the NOD 110 development
25X1 must bear 10/18 of the total or [redacted] The other two costs -- the non-common design costs and the tooling costs are routine and need no further discussion.

6. The recurring costs are those costs for the parts, fabrication, etc. that will be incurred on every viewer built, which of course will be reduced in a quantity purchase, but would be equal to those costs shown in the attachment if single units were purchased. These costs were examined in minute detail, especially the man hours estimated and [redacted] very completely 25X1
established the accuracy of these estimates especially by showing how they correlated with fabrication of the NOD 100 viewer. These costs could not be reduced by the contracting officer.

7. After the thorough examination of the costs was completed the contracting officer simply stated that NPIC had only [redacted] o allocate and 25X1
25X1 [redacted] replied that they could not accept this offer, but must have the
25X1 [redacted] They stated the reason for their refusal was the following: (1) Their estimates were realistic (increases in wages and material cost were responsible for the September 1966 and current cost differential), (2) The technical risk undertaken is large, and (3) The financial risk involved is
25X1 great -- [redacted] must pay interest for the amortized costs until ten units (the amortization base) are developed. They will have unsupported interest expenses on a capital investment of approximately [redacted] for two 25X1
to three years (with the assumption that ten units are produced).

8. The only alternative that was discovered during the meeting would be a slight compromise in the technical specifications. If the off-axis resolution requirements could be slightly decreased, [redacted] maintains that 25X1
a single zoom system could be employed rather than two that will be required to meet the current specifications. One benefit of using a single zoom system is that no change over time would be required which is currently estimated to be five seconds -- to cover the complete magnification range.
25X1 [redacted] believes that they can produce a single zoom system to cover the 3X to 70X range with the resolution capability shown in Figure 1. This compares with the current two zoom system specification shown in the same figure. They estimate that not only can the development costs be reduced by
25X1 approximately [redacted] but the production units would be likewise reduced by this amount.

SUBJECT: Contract Negotiation with [redacted] 25X1

25X1 9. In two weeks, [redacted] will repropose a two option offer: (1) the cost to build the viewer to the current specifications -- expected to
25X1 be the existing [redacted] or (2) the cost to build the one zoom system stating what specifications they would guarantee including image performance across the screen. Upon receipt of that document, NPIC will have to decide either to increase the project allocation or decrease the optical requirements.

[redacted] 25X1

ESB/TDS/DS

Distribution:
Orig & 1 - Addressee
2 - Ch/ESB

NPIC/TDS/D-741-67
10 March 1967

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[redacted] 25X1
ESB/TDS/DS

Distribution:
Orig & 1 - Addressee
2 - Ch/ESB

Next 5 Page(s) In Document Exempt

Approved For Release 2005/05/02 : CIA-RDP78B04770A001900020006-5

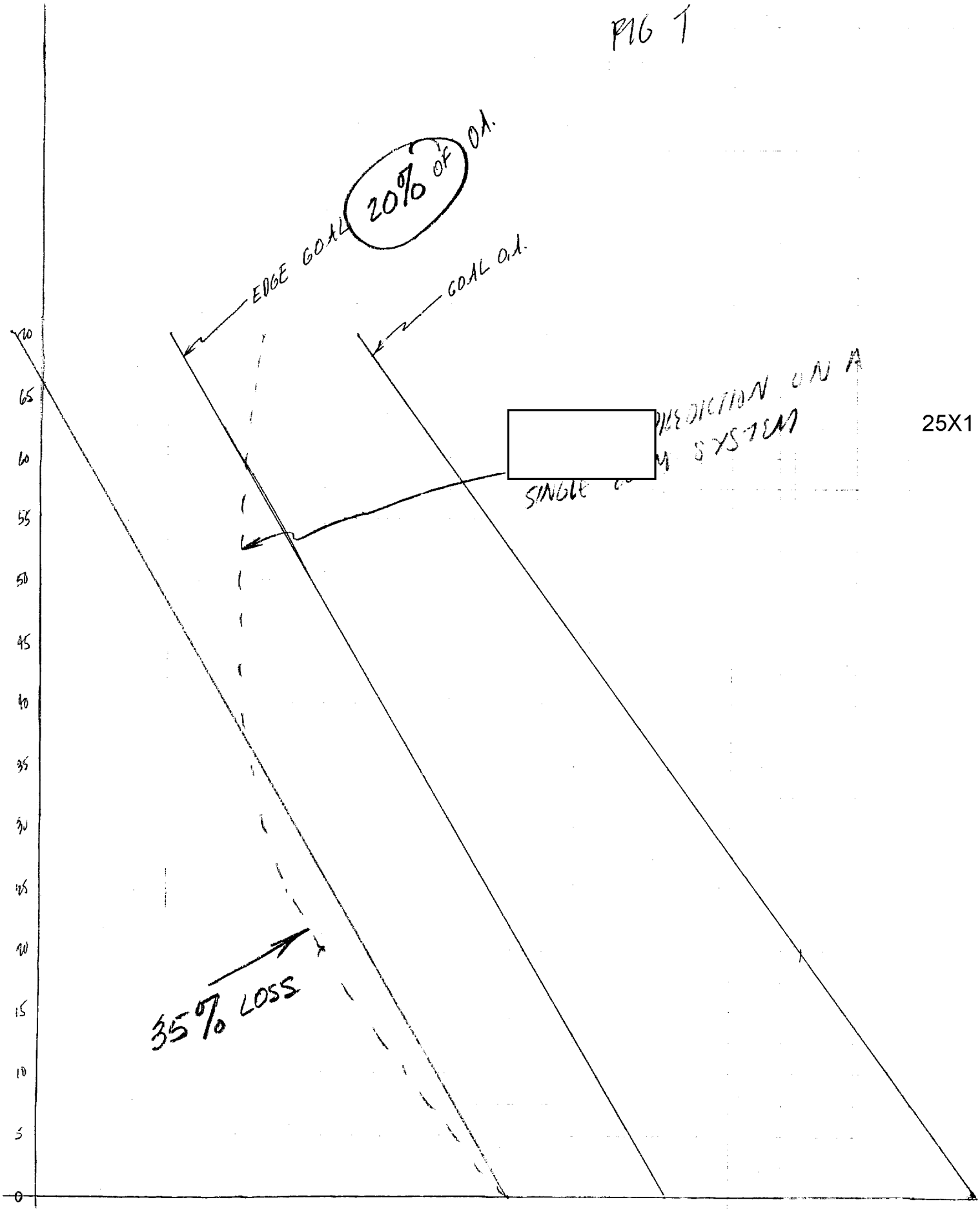
TRANSMITTAL SLIP	DATE
TO:	
ROOM NO.	BUILDING
REMARKS:	

FIG #1

ILL REDRAW

FROM:		
ROOM NO.	BUILDING	EXTENSION

FIG 1



25X1

2151

2 MAR 1961

B-Rev-Con

[redacted]

AGREED TO CHANGE D.O. TO MAKE PROVIDE RESEARCH SPEC.

FILM TM

ELEC

STRU

RECOMM TO [redacted] 25X1

EST. 8 FOR NOD 100
" 10 " NOD 110
} 18 UNITS OR [redacted] 25X1

25
2

30
24
8

25X1

★ NO FIXED PRICE R&D (NO DEFAULT CLAUSE)

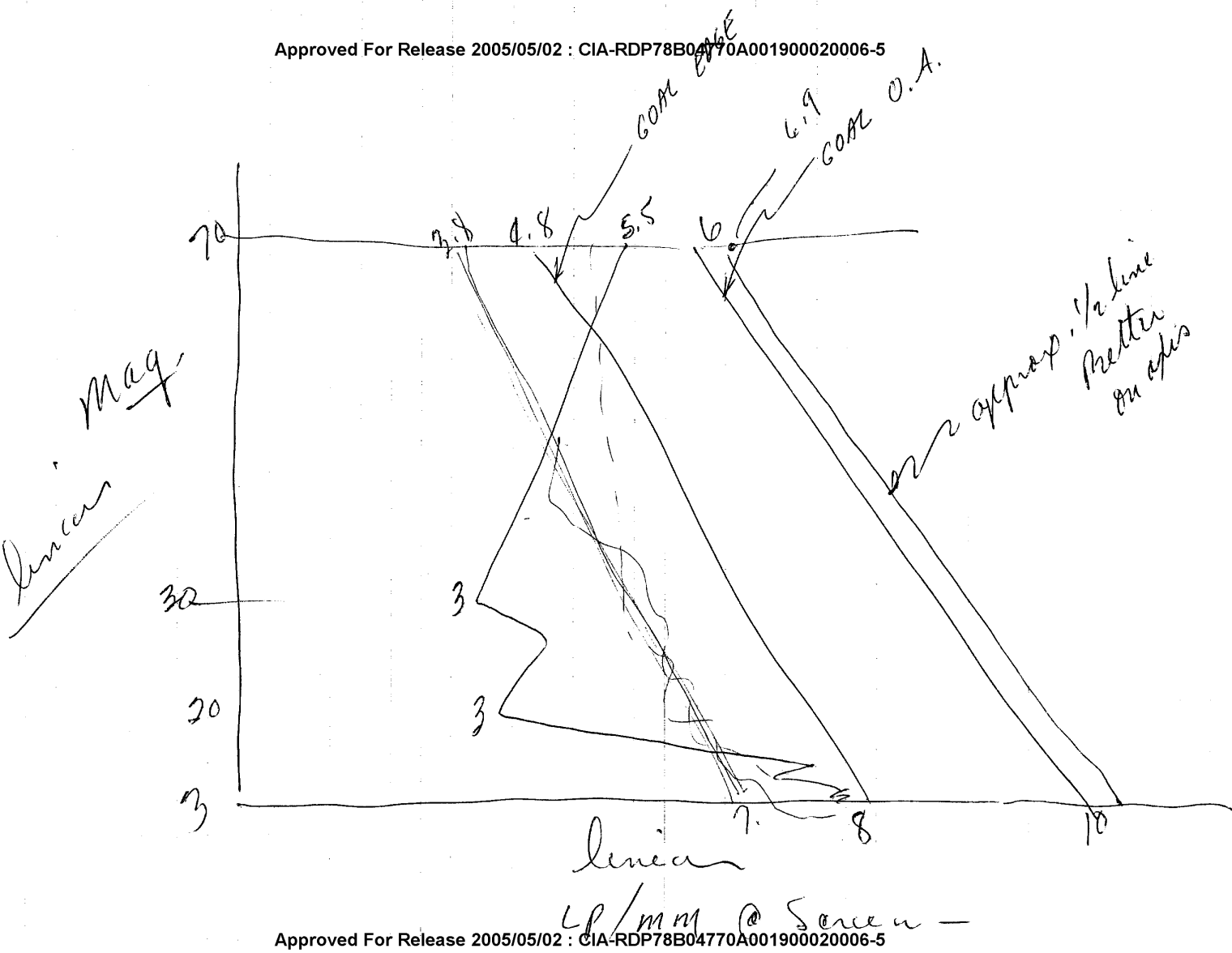
FIXED PRICE SUPPLY WOULD SEEM TO BE BEST.

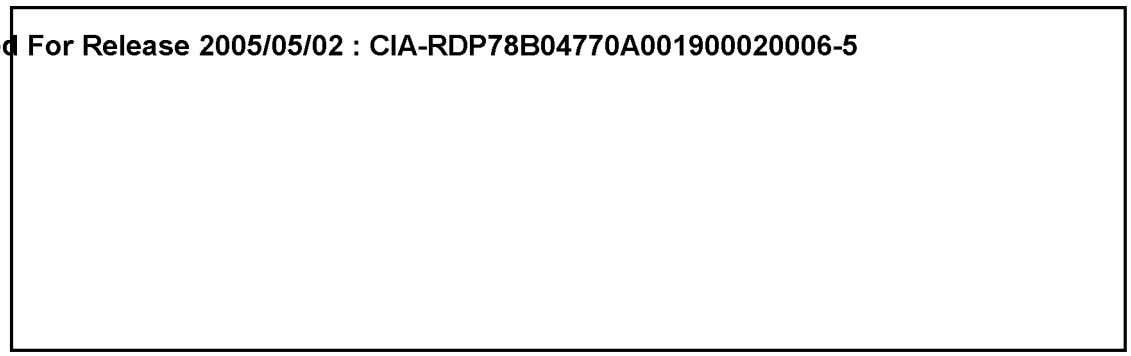
1. PROGRESS PAYMENTS ARE POSSIBLE

FIXED PRICE INCENTIVE (PERFORMANCE)

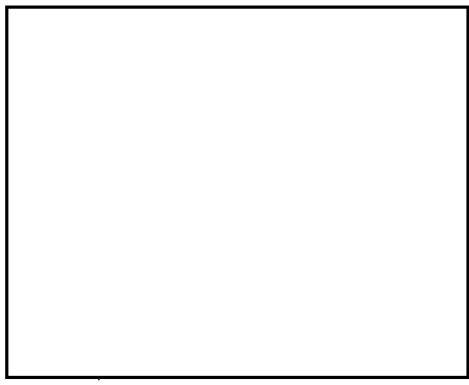
1. LENS DESIGN
2. HEAT PROBLEM
3. FOCUSING GATE (FILM DAMAGE)

COST TYPE CONTRACT (PRICE CEILING) CPFF THIS IS BEST EFFORT.





AND IN ADDITION THIS FIGURE WILL BE REDUCED OFF EACH PURCHASED INSTRUMENT.



ATTENTION: TECHNICAL DEVELOPMENT BOARD MEMBERS

THE INFORMATION CONTAINED IN THE ATTACHED PAPERS IS NOT TO BE RELEASED OR REVEALED TO ANY CONTRACTOR UNTIL AFTER THE CONTRACT INVOLVED HAS BEEN LET BY THE OFFICE OF LOGISTICS. IT IS ESPECIALLY IMPORTANT THAT THE IDENTITY OF THE SUCCESSFUL CONTRACTOR NOT BE DIVULGED IN ANY WAY WHICH COULD LEAD TO ITS BECOMING KNOWN BY OTHER CONTRACTORS OR POTENTIAL CONTRACTORS.

Approved For Release 2005/05/02 : CIA-RDP78B04770A001900020006-5

NPIC/TDB-M-16/66
1 November 1966

TECHNICAL DEVELOPMENT BOARD

MINUTES

Time: 0930 hours
Date: 27 October 1966

Place: 4N412

Members Present

25X1

Observers

1. Announcements

a. Approval of Minutes

The Chairman opened the meeting and announced that the minutes of the 28 September 1966 TDB Meeting were noted and recommended items were approved by the Executive Director on 5 October 1966.

b. Proposals

The Chairman announced that six new proposals have been received since the last meeting and are available in the P&DS for TDB members to review if they desire. He also announced that ten proposals have been rejected because the proposals did not meet NPIC requirements,

or as a result of competitive evaluation.

c. Interim Actions

(1) The Chairman announced that executive approval had been secured on 4 October 1966, for an expenditure of [redacted] for a Time and Material Work Order Contract with [redacted] This action was taken because the Plans and Development Staff is called upon from time to time to make small modifications, changes, or repairs to existing or developing equipment as well as to provide small component parts of an optical nature. This expenditure will be charged to account 4100, Miscellaneous Services for FY 1967. 25X1 25X1 25X1

(2) The Chairman announced that executive approval had been secured on 18 October 1966 for a change in scope for the [redacted] Information Flow Analysis Contract at a cost of [redacted] This action was taken to finance additional work necessary to provide a solid foundation for Phase II of the Integrated Information System, (IIS). This work was generated by NPIC questions and comments and JIIRG Report recommendations. This change in scope will be charged to FY 1967 R&D funds. 25X1 25X1

(3) The Chairman announced that executive approval had been secured on 18 October for a change in scope for the Multi-format Data Block Reader (DBR) Contract with [redacted] This action was taken to finance an additional format, an additional control function and to simplify the computer processing of the retrieval data. This is a joint procurement item with GIMRADA, and this action has been coordinated with that Agency. This change in scope will be charged to FY 1967 R&D funds. 25X1 25X1

(4) The Chairman announced that executive approval had been secured on 18 October 1966 for a change in scope for Graded Estimate Measuring Samples (GEMS) Development with [redacted] in the amount of [redacted] This action was taken to finance, in parallel, a ten-week laboratory feasibility study for an alternate technique. It is not desirable to use any of the funds allotted against the current research because, if the proposed alternate technique proves not to be feasible, NPIC would want to continue the original technique. This change in scope will be charged to FY 1967 R&D funds. 25X1 25X1

25X1

[redacted] stated that he had a comment regarding the second Interim Action. The JIIRG Report has not been concurred in by [redacted] and that any work based upon JIIRG recommendations was premature. [redacted] then explained the work requested. [redacted] asked why P&DS felt that this item was a change in scope. [redacted] replied that there were three additional tasks assigned to [redacted] which were not included in the initial work statement. 25X1 25X1 25X1 25X1 25X1 25X1

2. New Business

a. P. I. Print Enlarger, [redacted] of the Development Branch, P&DS presented this item to the Board using briefing boards for illustration. [redacted] stated that in November 1965 IAD submitted to P&DS a requirement to develop a rapid-access paper print viewer enlarger to permit the P.I. to scan a roll of film, select an area for enlargement, and produce, in the shortest possible time, an enlarged paper print directly from the roll of positive film being scanned. These enlargements were to be used for briefings, for working materials, and for division reference materials. These prints were not to replace the high-quality enlargements produced by the NPIC photo laboratory. Following receipt of the IAD request, all known materials were investigated for application. In August 1966, [redacted] demonstrated to the NPIC/P&DS, [redacted] Diffusion Transfer Material, which meets all the requirements for a rapid-access positive printing system and is commercially available. This project is for the development of a prototype viewer printer with magnification steps of approximately 2X, 4X, 7X, 10X and 20X. Production of a print will require approximately 30 seconds. The development will require approximately seven months. [redacted] stated that it is the recommendation of the P&DS to award this contract to [redacted] to build a prototype at a cost of [redacted] The funding for the project will come out of FY-1967 R&D program.

[redacted] if the screen was necessary. [redacted] stated that it would be very helpful. [redacted] asked how much maintenance was involved in this project. [redacted] explained that very little maintenance was necessary; only the chemical tray has to be removed and washed at the end of the work period and the optical system is very simple to clean. [redacted] contributed some constructive comments on the Staff Study and R&D Catalog Form. [redacted] stated that these comments would be incorporated into a revised Staff Study and Catalog Form.

[redacted] stated that he would like to go on the record as saying: "PAG concurred last July on a dry process project in P&DS Program FY-1967. PAG prefers not to have a wet process, with which maintenance problems are generally associated. PAG prefers a less bulky device, but if P&DS confirms that this is the best way to fulfill the requirements, PAG will not object to the proposal." [redacted] remarked that this was a good way to fulfill interim requirements for enlargements while waiting for the briefing boards. There were no other comments and the Chairman ruled that the recommendation will be made to the Executive Director that this project be approved.

b. Rear-Projection Viewer, [redacted] 25X1
25X1 [redacted] Development Branch, P&DS, presented this item to the Board. [redacted] said that the purpose 25X1
of this development is to provide NPIC with a viewing device whose performance characteristics are compatible with the large quantities, and high quality, of current and projected imagery inputs. [redacted] 25X1
explained that the basic purpose of any rear-projection viewer in the photo interpretation process is to provide large area display of imagery. He demonstrated this concept graphically. In spite of this
25X1 characteristic, [redacted] went on to say, rear-projection viewers have been practically eliminated from photo interpretation scanning operations because of real or imagined deficiencies in existing viewers. It is now possible through recently proven components and concepts to develop an advanced rear-projection viewer without many of the deficiencies of earlier models. This project will result in the fabrication of a prototype advanced rear-projection viewer, having continuous (zoom) magnification, within 11 months from the date of contract.
25X1 [redacted] said "PAG recommends that P&DS combine the various rear projection viewer proposals into one contract. There are two projects for rear projection screens, and I don't understand why you haven't tied these together and put one of the new screens into this
25X1 device." [redacted] answered that the two contracts for the UV screen
25X1 and [redacted] screen have not yet produced an operational model.
25X1 [redacted] stated that if the new screen is sufficiently better than the ones now in use then PAG will have a replacement for its
25X1 microscopes. [redacted] stated the main objection he had heard concerning the use of rear projection viewers is that the operator cannot scan the full width of film, thereby increasing P.I. time scanning back and
25X1 forth. [redacted] said "if we have better ground resolution in the future from the new acquisition systems, PAG feels we won't need viewers. PAG feels the Center should wait until we find out the screen results and then go into the development of viewers." [redacted] 25X1
asked what thought had been given to the digitizing of the viewer output, since it was not mentioned in the Staff Study. [redacted] stated that 25X1
a shaft encoder could be added but we are providing only a frame coordinate reader on the prototype.

A lengthy discussion followed concerning the validity of the requirement for another generation of rear projection viewers. The deliberations included the following subjects:

(1) How this instrument fits into the Center's overall long range plan.

(2) Can the instrument display what the interpreter needs to see?

(3) Advantages of direct viewing versus projection viewing.

(4) On-line relationship of viewing, interpretation and mensuration.

(5) Validity of scheduling for this instrument.

Few definitive conclusions were derived from the discussion, and therefore, most members added qualifications to their votes. The voting results were:

Those supporting the P&DS recommendation

OPS - provided P&DS assures that the optical quality of the instrument is sufficient to provide the image detail needed by the P.I.

IPD - provided parallel development of the digitizing and on-line measurement components for the viewer are undertaken.

CSD - provided the design concept is compatible with oncoming systems.

PD - Concur.

SS - Concur, this is a valid applied research effort.

P&DS - The comments of members will be given consideration as this development proceeds.

Those opposed to the P&DS recommendation

PSD - because of inadequate coordination of on-line concept and inability to visualize the systems context relationship of this instrument.

PAG - premature, requirement has not been validated and screen developments have not been integrated; recommend project be deferred.

TID - premature, although the Center needs an improved viewing system, there are too many loose ends, including cost effectiveness, to be considered before the project is submitted for executive approval.

The vote being 6 to 3 the Chairman ruled that the development would be submitted for approval with the minor corrections made in the Staff Study and Catalog Form suggested by [redacted] 25X1

c. Advanced Anamorphic Eyepieces, [redacted] 25X1

25X1 [redacted] presented this item to the board with the use of briefing
25X1 boards. [redacted] explained that recently an anamorphic eyepiece attachment was developed for the [redacted] Zoom 70 Microstereoscope. 25X1
Operational evaluation has shown that this attachment can be extremely

valuable for stereoscopic fusion of certain oblique imagery. Operational elements couldn't wait for further refinement of the prototype so they bought a total of 21 units for the Zoom 70's. This project is to develop similar eyepieces for the High-power Stereoviewers of which there are 150 in the building. [redacted] demonstrated the 25X1
theoretical simplicity of removing the eyepiece holder and replacing it with an anamorphic system. These units will be about 1" longer than the standard eyepiece holder. There is little modification to
25X1 the viewer itself. [redacted] stated that this project will be a two phase effort. The design phase will require four months, the fabrication phase will require five months, and the latter will be predicated on the successful completion of the former. [redacted] 25X1
stated that the advanced anamorphic eyepieces promise to provide a significant improvement, by extending the range of stereoscopic fusion
25X1 in the utilization of the [redacted] High-power Stereoviewer. [redacted] 25X1
stated that the Staff Study mentions the High-power Stereoviewer but the catalog form calls it the Twin Dynazoom Microstereoscope.
25X1 [redacted] explained that these are the same instrument and the catalog form will be changed to the correct name "High-Power Stereoviewer". The Chairman asked if there were any objections to this development.
25X1 [redacted] said, PAG thinks there is a misunderstanding on the requirement for this device. PAG does not visualize wide use of this device. PAG does not feel that all of their High-power Stereoviewers should be modified. PAG wants P&DS to understand it is expected to receive limited use. PAG fears that extensive use of this device increases the danger of a P. I. reporting a distorted image. However, PAG does concur with that clarification. The Chairman ruled that this item would be recommended to the Executive Director for approval with unanimous concurrence..

Old Business

The Chairman announced that the memorandum that he promised would be written regarding the future activities of this Board has not been drafted. However, he announced that it soon would be forthcoming.

[redacted] 25X1

Executive Secretary, TDB

Attachment

SECRET

NPIC/TDB-M-16/66
1 November 1966

TECHNICAL DEVELOPMENT BOARD

RECOMMENDATION SHEET

The following items have been reviewed by the Technical Development Board and were recommended for approval:

a. P. I. Print Enlarger, [redacted] 25X1

APPROVED: _____ DATE _____
EXECUTIVE DIRECTOR, NPIC

b. Rear-Projection Viewer, [redacted] 25X1

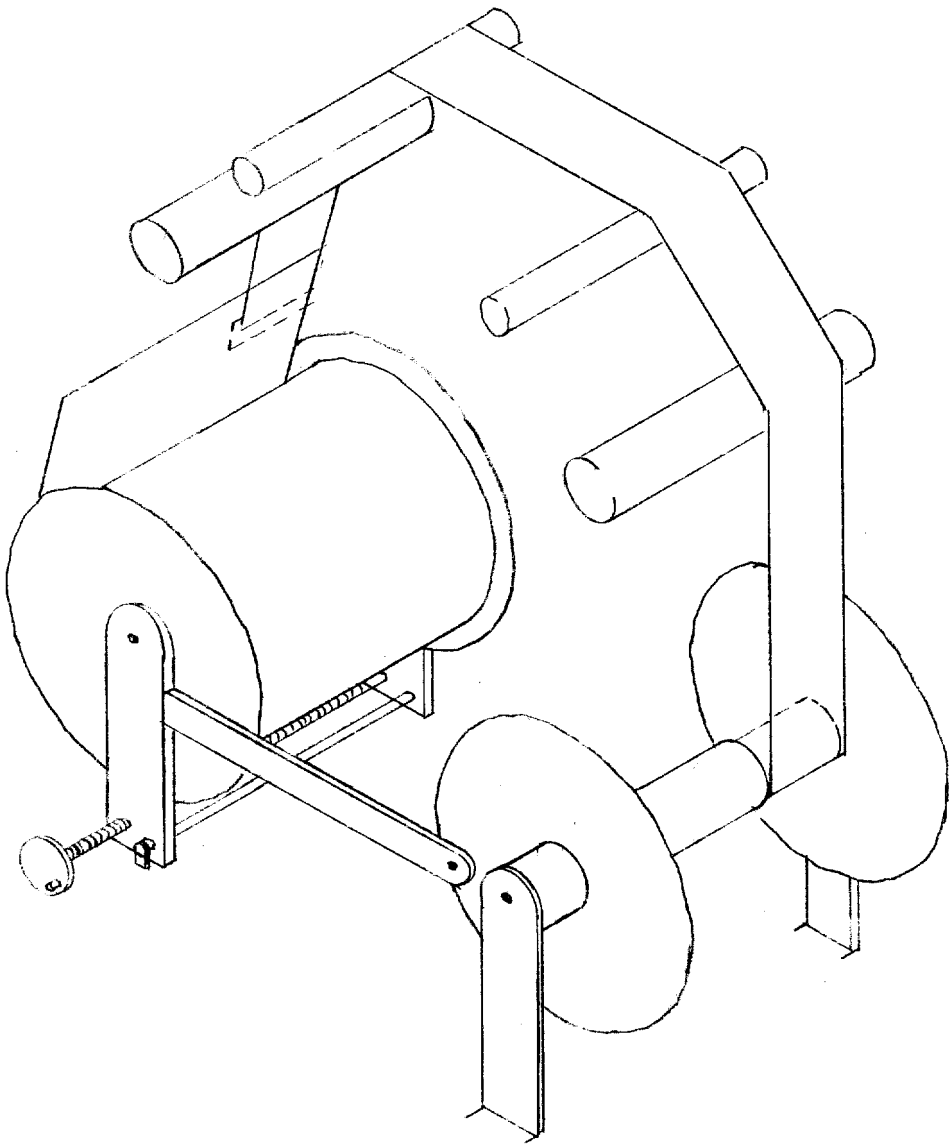
25X1 [redacted]

APPROVED: _____ DATE: _____
EXECUTIVE DIRECTOR, NPIC

c. Advanced Anamorphic Eyepieces, [redacted] 25X1

APPROVED: _____ DATE: _____
EXECUTIVE DIRECTOR, NPIC

SECRET



RESOLUTION IN LP/MM/MAG. POWER

25X1

MAGNIFICATION	RESOLUTION ON AXIS	RESOLUTION WORST
6X	10	5,3
12X	10	3.7
30X	5.4	1.7
6X	6.3	4.2
12X	5.6	3.8
24X	4.8	2.4
48X	4.4	2.9
3X	13,3	10,7
6X	9.5	6.7
12X	8.4	8.4
30X	7.6 128	7.6
3X	10	8
34.5X	8	6.4
70X	6	4.8

FIELD OF VIEW	3X	7X	14X	60X
25X1 ☐ ZOOM TO WITH ATT		1.13"	.55"	.13"
25X1 ALMOST 5 TIMES THE FIELD OF VIEW ☐ VIEWER	10"	4.3"	2.14"	.5"
25X1 ☐	2.64	1.13"	.55"	.13"

6X (10 lp/mm/pow 0.1 → 5) 12X (10 → 4) 30 (5.5 → 1.6)

RESOLUTION OF [redacted] 25X1

WHAT AREAS NEED INVESTIGATION INSTEAD OF R.P. VIEWER

EASE OF OPERATION (FILM LOADING)

1 PI OPERATING WITH LIGHT TABLE (OPT. JOYSTICK)

SPACE PROBLEM

25X1 [redacted]

6X (6.3 → 4.2) 12 5.6 → 3.8 24 4.8 → 2.4 48X 4.9 → 2.9

SECRET
(When Filled In)

TECHNICAL BACKGROUND PROCUREMENT INFORMATION

I. Contractor
A. Name and address: [redacted] 25X1

B. Evaluation of previous performance: No previous performance with NPIC.

II. Brief description of this procurement: A Rear-Projection Viewer with a continuous magnification range from 3X to 70X.

Estimated total amt. [redacted] 25X1

A. Deliverable items: One Rear-Projection Viewer, spare parts consisting of (a) 4 projection lamps (b) 2 platen assemblies (c) 1 can touch-up paint, and operational and maintenance manuals.

B. Is this procurement for other than a standard, "off the shelf" or slightly modified commercial item? YES If "yes", is it anticipated that any more of this unit will be procured? YES If so, a complete set of directly reproducible manufacturing drawings and specifications would normally be included in this procurement. Comments: This would be desirable but probably not agreeable to the contractor -- a point for negotiation.

C. Will contract cover a period of more than 90 days? YES
If "yes", are progress reports desired? YES If so, indicate frequency, content and number of copies desired: Should conform to specification DB-1001 revised 31 August 1966.

D. Is any Government-owned property to be provided to the contractor?

NO If so, list and indicate its availability (where, when, etc.)

SECRET
(When Filled In)

E. Is any special tooling involved? NO

F. Security:

1. Association with the Sponsor is CONFIDENTIAL

2. The specifications and/or drawings are UNCLASSIFIED

3. The item is UNCLASSIFIED

4. Contractor personnel known to be aware of this proposed procurement:

25X1 [redacted]

5. Other security information None

III. Reasons for selection of this source. If other sources were considered, indicate results. If no other sources were considered, list the reasons why this firm is considered to be uniquely qualified to perform this work.

25X1 Of the eighteen companies invited to bid, six choose to respond. Of the six, [redacted] was the lowest bidder and their technical response was satisfactory.

IV. If contract will cover deliverable item(s) state room location where equipment will be installed PAG. (It is extremely important that the Engineering Data Sheet including room location and any other pertinent facts be submitted to NPIC Engineering Section as far as possible in advance of delivery.)

25X1

V. Technical contact [redacted]

In the event additional space is required, use the reverse side(s) of this form, with a reference to the item number to which the comment applies.

17 Oct 1966

02157

Ed —

Consider DD S&T coordinated with.

per my telecon with [redacted] 10/17/66 25X1

PLS FILE

MEMORANDUM FOR: This fine.

[redacted]

25X1

Can you do anything with this — or would you prefer to wait for a new draft?

(DATE) 7 Oct 66

FORM NO. 101 AUG 54 REPLACES FORM 10-101 WHICH MAY BE USED.

(47)

Hd RPV 6

Discussion.

1. Does the discussion represent a good comprehension of the way present scanning operations are performed?

2. For which specific operations do we anticipate application of this RPV. OAK? MIS? Other? Would PAG agree to the potential application?

3. The use of direct viewing systems and their ...

2)

with RP systems is not clearly defined in 3a.

3b. is presumptious and incomplete.

c. Program Planning. I believe this could be improved.

(g. Alternatives, needs improvement

M